

REMARKS

At the outset, the Examiner is thanked for the consideration of the pending application. The Final Office Action dated April 7, 2009 has been received and its contents carefully reviewed.

The Examiner is also thanked for the telephone interview with Applicants' representative on June 26, 2009. Proposed amendments to overcome the 35 U.S.C. §112 rejection to claim 3 and the 35 U.S.C. §102 rejection to claim 1 are discussed. No agreement was reached.

Claims 1, 3, 30, 32, 33, 37, and 39 are hereby amended. Claims 43-46 are newly added. Claims 32, 33, 37, 39 are amended and claims 43-46 are added to remove multiple dependency. No additional claim fees are due, and no new matter has been added. Accordingly, claims 1-46 are currently pending. Reconsideration of the pending claims are respectfully requested.

The Office Action rejects claim 3 under 35 U.S.C. §112, second paragraph, as being indefinite. Applicants have amended claim 3 to more clearly define claimed subject matter. Applicants, therefore, respectfully request withdrawal of the 35 U.S.C. §112, second paragraph, rejection of claim 3.

The Office Action rejects claims 1, 4, 10-12, 15, 17, 19, 20, 28, 29, and 32 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,210,894 to Brennan (*Brennan*). Applicants respectfully traverse the rejection.

To anticipate a claimed invention the prior art must disclose all the elements of the claim. *Brennan* fails to disclose all the elements of claims 1, 4, 10-12, 15, 17, 19, 20, 28, 29, and 32, and thus cannot anticipate these claims.

Amended claim 1 recites, “at least a capture zone for the localized capture of a drop of said liquid of interest formed on said active surface, at least an operating zone formed on said active surface and separate from the capture zone.¹” *Brennan* fails to teach at least these elements

of claim 1. The Office Action states “Brennan teaches … a capture zone and an operating zone (column 5 lines 5-23, column 7 lines 14-26).” *Office Action*, page 2. Applicants respectfully disagree. *Brennan* only discloses forming hydrophilic binding site (Si-OH) on hydrophobic fluoroalkylsilane surface (Si-F). *Brennan*, column 2, lines 30 to column 3, line 8, and Figs. 2A, 2B. In other words, *Brennan* only discloses forming one zone (hydrophilic binding site) on the active surface (hydrophobic surface). Because it fails to disclose at least these elements of claim 1, *Brennan* cannot anticipate claim 1 or any claims dependent on claim 1. Claim 1 and its dependent claims 4, 10-12, 15, 17, 19, 20, 28, 29, and 32 are allowable over *Brennan*. Applicants respectfully request withdrawal of this rejection.

The Office Action also rejects claims 2, 3, 5, and 16 under 35 U.S.C. §103(a) as being obvious over *Brennan* in view of U.S. Patent No. 6,565,813 to Garyantes (*Garyantes*). Applicants respectfully traverse the rejection.

In order to establish *prima facie* obviousness of the claimed invention, all the elements must be taught or suggested by the prior art. The combined teaching of *Brennan* and *Garyantes* fails to teach or suggest every element of claims 2, 3, 5, and 16, and thus, cannot render these claims obvious.

Claims 2, 3, 5, and 16 variously depend on claim 1 and thus incorporate all the elements of claim 1. Amended claim 1 recites “at least a capture zone for the localized capture of a drop of said liquid of interest formed on said active surface, at least an operating zone formed on said active surface and separate from the capture zone.” As discussed above, *Brennan* fails to teach at least these element of claim 1. *Garyantes* does not cure the deficiency of *Brennan*. The Office Action cites *Garyantes* for disclosing a device comprising a plurality of wells having an annular circular shape and surrounding several hydrophilic zones with a hydrophobic zone. *Office Action*, page 5. *Garyantes* also fails to teach or suggest “at least one operating zone separate from the capture zone” as recited in claim 1. Accordingly, claim 1 is also patentable over the combined teaching of *Brennan* and *Garyantes*. Being dependent on claim 1, claims 2, 3, 5 and 16 are also patentable over the combined teaching of *Brennan* and *Garyantes* for at least the same reasons as claim 1. Applicants, therefore, respectfully request withdrawal of the rejection.

The Office Action further rejects claims 6, 8, 9, 13, 14, 18, 21, 22, and 25 under 35 U.S.C. §103(a) as being obvious over *Brennan* in view of U.S. Patent No. 6,017,696 to Heller (*Heller*). Applicants respectfully traverse the rejection.

Claims 6, 8, 9, 13, 14, 18, 21, 22, and 25 variously depend on claim 1, and incorporate all the elements of claim 1. As discussed above, *Brennan* fails to teach or suggest the above-recited elements of claim 1, “at least a capture zone for the localized capture of a drop of said liquid of interest formed on said active surface, at least an operating zone formed on said active surface and separate from the capture zone.” *Heller* also does not cure the deficiency of *Brennan* with respect to claim 1. The Office Action cites *Heller* for disclosing placing electrodes in microlocation zones to control electrophoretic transport of molecules in a sample liquid. *Office Action*, page 6. *Heller* also fails to teach or suggest the above-recited elements of claim 1. Accordingly, the combined teachings of *Brennan* and *Heller* cannot render claim 1 obvious. Dependent claims 6, 8, 9, 13, 14, 18, 21, 22, and 25 are patentable over the combined teaching of *Brennan* and *Heller* for at least the same reasons as claim 1. Applicants, therefore, respectfully request withdrawal of the rejection.

The Office Action also rejects claims 23 and 24 under 35 U.S.C. §103(a) as being obvious over *Brennan* in view of *Heller*, and further in view of U.S. Patent No. 5,440,025 to Marx et al. (*Marx*). Applicants respectfully traverse the rejection.

Claims 23 and 24 variously depend on claim 1 and thus incorporate all the elements of claim 1. As discussed above, the combined teaching of *Brennan* and *Heller* fails to teach or suggest the above-recited elements of claim 1, “at least a capture zone for the localized capture of a drop of said liquid of interest formed on said active surface, at least an operating zone formed on said active surface and separate from the capture zone.” *Marx* does not cure the deficiency of *Brennan* and *Heller* with respect to claim 1. The Office Action cites *Marx* only for disclosing extracting a nucleic acid with an electrically conductive polymer and polypyrrole as the electrically conductive polymer. *Office Action*, page 9. Like *Brennan* and *Heller*, *Marx* also fails to teach or suggest the above-recited element of claim 1. Accordingly, even in further combination with *Marx* the combined teachings of *Brennan* and *Heller* cannot render claim 1 obvious. Claims 23 and 24 are thus also patentable over the combined teaching of *Brennan*,

Heller, and *Marx* for at least the same reasons as claim 1. Applicants, therefore, respectfully request withdrawal of the rejection.

The Office Action rejects claims 30-35, 38, and 42 under 35 U.S.C. §103(a) as being obvious over *Brennan*. Applicants respectfully traverse the rejection.

Like claim 1, amended claim 30 recites, “at least a capture zone for the localized capture of a drop of said liquid of interest formed on said active surface, at least an operating zone formed on said active surface and separate from the capture zone.” As discussed above, *Brennan* fails to teach or suggest these elements of claim 30. Because *Brennan* does not teach or suggest all the elements of claims 1 and 30, it cannot render these claims obvious. Accordingly, claims 1 and 30 are patentable over *Brennan*. Claims 33-35, 38, and 42 and newly added claims 43-36 variously depend from claims 1 and 30, and thus, are also patentable over *Brennan* for at least the same reasons as claims 1 and 30. Applicants, therefore, respectfully request withdrawal of the rejection.

The Office Action rejects claim 36 under 35 U.S.C. §103(a) as being obvious over *Brennan* in view of U.S. Patent No. 5,624,815 to Grant et al. (*Grant*). Applicants respectfully traverse the rejection.

Claim 36 indirectly depends on claim 1. As discussed above, *Brennan* fails to teach or suggest the above-recited elements of claim 1, namely, “at least a capture zone for the localized capture of a drop of said liquid of interest formed on said active surface, at least an operating zone formed on said active surface and separate from the capture zone.” *Grant* does not cure the deficiency of *Brennan* with respect to claim 1. The Office Action cites *Grant* for disclosing utilizing a suction pump for liquid withdrawal in order to efficiently remove excess liquid. *Office Action*, page 11. Notably, *Grant* also fails to teach or suggest the above-recited elements of claim 1. Accordingly, claim 1 is patentable over the combined teaching of *Brennan* and *Grant*. Claim 36 is therefore also patentable over the combined teaching of *Brennan* and *Grant* for at least the same reasons as claim 1. Applicants, therefore, respectfully request withdrawal of the rejection.

The Office Action rejects claims 39-41 under 35 U.S.C. §103(a) as being obvious over *Brennan* in view of U.S. Patent No. 5,545,531 to Rava et al. (*Rava*). Applicants respectfully traverse the rejection.

Claims 39-41 variously depend on claim 1. As discussed above, *Brennan* fails to teach or suggest the above-recited elements of claim 1, namely “at least a capture zone for the localized capture of a drop of said liquid of interest formed on said active surface, at least an operating zone formed on said active surface and separate from the capture zone.” *Rava* does not cure the deficiency of *Brennan* with respect to claim 1. The Office Action cites *Rava* for disclosing forming a multiple biological chips wherein probes are exposed on the surface of a substrate in order to bind analyte in a liquid sample. *Office Action*, page 12. Like the other references discussed above, *Rava* also fails to teach or suggest the above-recited elements of claim 1. Accordingly, claim 1 is also patentable over the combined teaching of *Brennan* and *Rava*. Thus, claims 39-41 are also patentable over the combined teaching of *Brennan* and *Rava* for at least the same reasons as claim 1. Applicants, therefore, respectfully request withdrawal of the rejection.

The Office Action rejects claim 42 under 35 U.S.C. §103(a) as being obvious over *Brennan*.

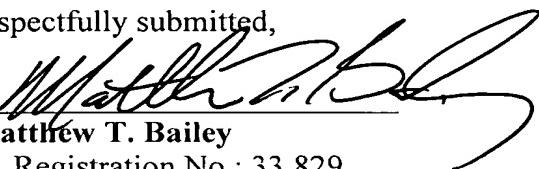
Claim 42 depends on claim 1. As discussed above, *Brennan* fails to teach or suggest the above-recited elements of claim 1, namely, “at least a capture zone for the localized capture of a drop of said liquid of interest formed on said active surface, at least an operating zone formed on said active surface and separate from the capture zone.” Accordingly, claim 1 and its dependent claim 42 are patentable over *Brennan*. Applicants, therefore, respectfully request withdrawal of the rejection.

The application is in condition for allowance and early, favorable action is respectfully solicited. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911.

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Respectfully submitted,

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